CHAPTER 8

PERMITTING OF TREATMENT, STORAGE AND DISPOSAL FACILITIES

In this chapter	
Overview	III-123
Applicability	III-124
Permitting Process	III-125
- Informal Meeting Prior to Application	III-125
- Permit Submission	III-126
- Permit Review	III-126
- Preparation of the Draft Permit	III-127
- Taking Public Comment	III-128
- Finalizing the Permit	III-128
Permit Administration	III-128
- Omnibus Provision	III-129
- Permit-as-a-Shield	III-130
Interim Status	III-130
- Qualifying for Interim Status	III-131
- Changes During Interim Status	III-131
- Termination of Interim Status	III-131
Special Forms of Hazardous Waste Permits	III-132
- Permits-by-Rule	III-132
- Emergency Permits	III-132
- Research, Development, and Demonstration	
Permits	III-132
- Land Treatment Demonstration Permits	III-133
- Combustion Permits	III-133
- Post-Closure Permits	III-134
Summary	III-134

OVERVIEW

When RCRA was enacted, Congress recognized the risks posed by the treatment, storage, and disposal of large volumes of hazardous waste at TSDFs. Considering these

risks, Congress felt that TSDF management activities needed to be closely regulated to prevent spills, accidents, and mechanical failures. In addition, because these activities involve different units and different waste management methods, they require tailored standards. For example, land disposal units need precautions, such as liners and ground water monitoring, to ensure protection of ground water resources. Similarly, incinerators need special provisions, such as emission control requirements, to ensure protection of air resources. In response to these concerns, EPA promulgated extensive technical standards for the design and safe operation of hazardous waste TSDFs (these regulations are fully discussed in Section III, Chapter 5). However, these design and operating standards were not enough. Congress wanted a more tangible guarantee that TSDFs would comply with their extensive management standards in a way that would adequately protect human health and the environment.

TSDFs are unique in that their owners and operators choose to enter the hazardous waste industry. Unlike generators who produce hazardous waste incidental to their normal business operations, TSDF owners and operators make it their business to manage hazardous waste. Because these facilities choose to enter the hazardous waste industry, and engage in waste management processes that pose varied and extensive risks to human health and the environment, Congress wanted to ensure that these facilities would comply with the TSDF standards.

As a result, TSDFs are required to obtain permission, in the form of an operating permit, which establishes the administrative and technical conditions under which waste at the facility must be managed. Specifically, permits provide TSDF owners and operators with the legal authority to treat, store, or dispose of hazardous waste and detail how the facility must comply with the regulations. Compliance with this permit ensures that hazardous waste is handled in a controlled manner that is protective of human health and the environment. Permits also serve as an implementation mechanism, and as a means by which EPA can track waste management at facilities that choose to handle hazardous waste.

Permits can be issued by EPA, authorized states, or both. The permitting agency has the authority to issue or deny permits and is responsible for verifying that facilities are operating in compliance with the conditions set forth in that permit. Owners and operators of facilities that do not comply with permit provisions are subject to possible RCRA enforcement actions, including financial penalties.

WHAT ARE PERMITS?

TSDFs are required to obtain permission, in the form of an operating permit, that establishes the administrative and technical conditions under which waste at the facility must be managed. Permits provide TSDF owners and operators with the legal authority to treat, store, or dispose of hazardous waste and detail how the facility must comply with the regulations. Compliance with this permit ensures that hazardous waste is handled in a controlled manner that is protective of human health and the environment. Permits also serve as an implementation mechanism, and as a means by which EPA can track waste management at facilities that choose to handle hazardous waste.

APPLICABILITY

All TSDF owners and operators must submit a comprehensive permit application that covers the full range of TSDF standards, including general facility provisions, unit-specific requirements, closure and financial assurance standards, and any applicable ground water monitoring and air emissions provisions. The permit application must demonstrate that the permittee's methods of handling the waste are consistent with the level of protection of human health and the environment required by RCRA.

Some facilities are not required to obtain a RCRA permit when handling hazardous waste provided that they meet certain conditions specified in the regulations. EPA has determined that the requirements of the permit process would place an unnecessary regulatory burden on these facilities because the manner in which they manage the waste does not pose a significant threat to human health and the environment. These exceptions include:

- LQGs accumulating waste on site for less than 90 days (as discussed in Section III, Chapter 3)
- SQGs accumulating waste on site for less than 180 days (as discussed in Section III, Chapter 3)
- Farmers disposing of waste pesticides and container residues on their own land
- Owners and operators of ENUs, TETUs, and WWTUs (as discussed in Section III, Chapter 5)
- Transporters storing manifested wastes at transfer facilities for a period of 10 days or less (as discussed in Section III, Chapter 4)
- Owners and operators performing containment activities during an immediate response to an emergency

Chapter 8: Permitting of Treatment, Storage, and Disposal Facilities

- Universal waste handlers and transporters (as discussed in Section III, Chapter 2)
- Persons adding absorbent material to hazardous waste in a container and persons adding waste to absorbent material in a container.

If any of these facilities treat, store, or dispose of hazardous waste in a manner not covered by one of these exclusions, they are subject to the RCRA permit requirements for that activity. For example, if a LQG exceeds the 90-day accumulation time limit, the facility becomes a storage facility and the owner and operator must obtain RCRA operating permit.

Recycling units are also exempt from permitting requirements because the recycling process itself is exempt from RCRA (except for some air emission standards). However, recycling facility owners and operators must follow all applicable Subtitle C requirements (including the requirement to obtain a permit) for any waste management prior to recycling.

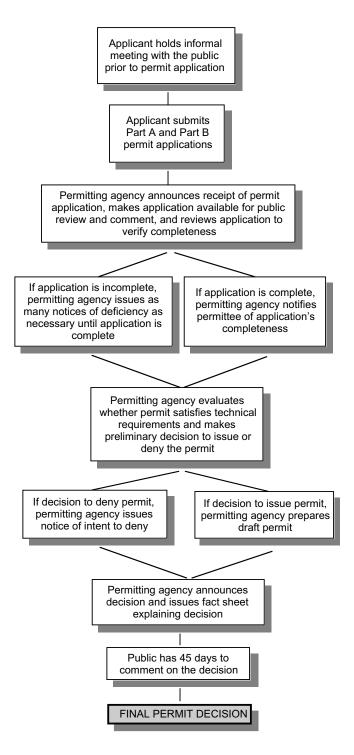
PERMITTING PROCESS

Owners and operators who are subject to the permitting requirements must submit a permit application in accordance with specific permit application procedures (see Figure III-31). While the operator has the duty to obtain the permit, both the owner and operator must sign it. These procedures have been established to account for facility-specific conditions by providing flexibility and ample opportunity for public involvement.

■ Informal Meeting Prior to Application

Prior to submitting a permit application, an applicant must announce and hold an informal meeting with the public. The purpose of this meeting is for the applicant to explain the

Figure III-31: THE PERMITTING PROCESS



Chapter 8: Permitting of Treatment, Storage,, and Disposal Facilities



operating plans for the facility to the public, including the waste the facility will handle and associated waste management processes, and for the public to pose questions and make suggestions. This informal public meeting is also intended to provide the owner and operator with issues and concerns to consider when drafting the permit. The permitting agency also uses this meeting to compile a mailing list for future public outreach.

Permit Submission

After the public meeting, the applicant can submit the permit application to the permitting agency. The permit application is divided into two parts, Part A and Part B. The Part A application is submitted on a designated form, EPA Form 8700-23, and requires basic information about the facility, such as the name of the facility owner and operator, the facility location, the hazardous waste management processes, the design capacity of these processes, and the hazardous waste that will actually be handled at the facility. The Part B application is submitted in narrative form and provides site-specific information associated with the waste management activities that will be conducted at the facility, and includes geologic, hydrologic, and engineering data (see Figure III-32). The Part B application covers the details

associated with the waste management activities that will occur at the facility, and therefore often consists of volumes of documents.

Owners and operators of new facilities must submit Parts A and B simultaneously. This submission must occur at least 180 days prior to the date on which physical construction is expected to begin. An owner and operator cannot begin construction of the facility until the application is reviewed and a final permit is issued.

Permit Review

The permitting agency announces its receipt of the permit application and makes the application available for public review and comment. Simultaneously, the agency reviews the application to verify its completeness. If the permitting agency determines that the application is incomplete, it issues a **notice of deficiency** to the permittee describing the additional information

Figure III-32: EXAMPLES OF PART A AND PART B INFORMATION REQUIREMENTS

Part A

- Activities conducted that require a permit
- · Facility name, mailing address, and location
- Facility standard industrial classification (SIC) codes
- Treatment, storage, and disposal processes
- · Design capacity of waste management units
- · List of wastes to be managed at facility
- Permits received or applied for under other regulatory programs
- Topographic map.

Part B

- General facility description
- Analyses of wastes to be managed
- · Facility security procedures
- Inspection schedule
- Contingency plan
- Procedures and precautions to prevent release of waste into environment
- Procedures and precautions to prevent accidental ignition or reaction of waste
- Facility location information.

that is necessary for a complete application. Such notices can be issued numerous times during the permit review and revision process. Each time the agency receives information, it reviews the content, and if necessary, issues another notice until the application is complete.

When the application contains all of the necessary information, the permitting agency notifies the permittee of the application's completeness and will begin an evaluation to determine whether it satisfies the appropriate technical requirements. After the evaluation, the permitting agency makes a preliminary decision on whether to issue or deny the permit. If the permitting agency determines that the application is complete and satisfies all applicable requirements, the agency prepares a draft permit. If the permitting agency determines that the application does not demonstrate compliance with the RCRA standards, it will tentatively deny the permit and issue a **notice of intent to deny**.

Preparation of the Draft Permit

In preparing the draft permit, the implementing agency incorporates all applicable technical requirements and all other conditions associated with the operations to be conducted at the facility into the permit. In addition, general and administrative conditions are placed in all draft permits and require the permittee, among other things, to:

- Comply with all provisions of the permit
- Provide any relevant information that is requested by the permitting agency
- Comply with all reporting requirements
- Allow the facility to be inspected
- Take all reasonable steps to protect human health and the environment.

In addition, the draft permit includes a statement of the permitting agency's right to modify, revoke and reissue, or terminate the permit as necessary.

The draft permit also includes the term of the permit. RCRA permits are effective for a fixed term of a maximum of 10 years. Limiting permit duration assures that facilities are periodically reviewed and that their requirements are updated to reflect the current state-of-the-art hazardous waste management practices. Considering the increased risks posed by the management of hazardous waste on the land, land disposal unit permits are to be reviewed five years after the date of issuance or reissuance and modified as necessary.

If a facility needs to conduct corrective action, but cannot complete the cleanup before the permit is issued, the permitting agency may include a schedule of compliance in the permit. This schedule establishes interim and final dates for the completion of specific cleanup goals, as well as reporting requirements.



Taking Public Comment

Once the draft permit is complete, or the notice of intent to deny has been issued, the permitting agency announces its decision by sending a letter to everyone on the facility mailing list, placing a notice in a local paper, and broadcasting the decision over the radio. The permitting agency also issues a fact sheet to explain the decision. After the announcement, the public has 45 days or more to comment on the decision. Citizens may request a public hearing to address concerns by contacting the permitting agency. The permitting agency may also hold a hearing at its own discretion, if deemed necessary. There is at least a 30-day public notice period before the hearing is convened.

If information submitted during the initial comment period appears to raise substantial new questions concerning the permit, the permitting agency may reopen or extend the comment period. In this situation, the permitting agency may also decide to revise the draft permit or issue a notice of intent to deny.

Finalizing the Permit

After the comment period closes, the implementing agency prepares a response to all significant public comments and makes the final permit decision by either issuing or denying the



permit. The owner and operator may appeal the decision to EPA's Environmental Appeals Board. When this administrative appeal is exhausted, the petitioner may seek judicial review of the final permit decision.

PERMIT ADMINISTRATION

EPA views permits as living documents that can be modified to allow facilities to implement technological improvements, comply with new environmental standards, respond to changing waste streams, and generally improve waste management practices. The permitting agency cannot anticipate all of the administrative, technical, or operational changes required over the permit term for the facility to maintain a stateof-the-art operation, and therefore, permit modifications are inevitable. The regulations governing permit modifications were developed to provide owners and operators and EPA with flexibility to change permit conditions, expand public notification and participation opportunities, and allow for expedited approval if no public concerns exist regarding a proposed change. Permit modifications can be requested by either the permittee or the permitting agency.

The regulations for permittee-requested modifications establish three classes of modifications. Class 1 modifications cover routine changes, such as correcting typographical errors or replacing equipment with functionally equivalent equipment. Class 2 modifications address common or frequently occurring changes needed to maintain a facility's level of safety or a facility's requirement to conform to new regulations. Class 3 modifications cover major changes that substantially alter the facility or its operations (see Figure III-33). Procedures differ among the three classes of permittee-requested modifications based on the degree of change. Class 1 modifications have minor administrative

Figure III-33: EXAMPLES OF PERMIT MODIFICATION CLASSIFICATIONS

Class 1	Class 2	Class 3
Adminstrative and informational changes	Changes in frequency or content of inspection schedules	Addition of corrective action program
Correction of typographical errors	Changes to corrective action program	Creation of a new landfill as part of closure
Changes in names, addresses, and phone numbers of emergency coordinators	Extensions of post-closure care period	Addition of compliance monitoring to ground water monitoring program
Changes to waste sampling and analysis methods to comply with new regulations	Changes to facility training plan that affect the type or amount of employee training	Reduction in post-closure care period
Changes to analytical quality assurance and quality control plan to comply with new regulations	Changes in number, location, depth, or design of groundwater monitoring wells	Addition of temporary incinerator for closure activities

Note: Permit modifications are classified thoroughly in 40 CFR §270.42, Appendix I

requirements and may or may not need prior Agency approval. Class 2 and 3 modifications have more substantial administrative requirements and require prior Agency approval followed by a process similar to the permitting process.

The permitting agency may request a permit modification if there are substantial alterations or additions to the facility, if new information is received by the permitting agency that was not available at the time of permit issuance, or if new regulations or judicial decisions affect the conditions of the permit. The permitting agency will request that the facility initiate the modification procedures for the type of change being requested. The permitting agency may terminate a permit if the facility fails to comply with any condition of the permit or does not disclose or misrepresents any relevant facts, or if the permitted activity endangers human health and the environment.

Omnibus Provision

Some hazardous waste management practices may pose threats to human health and the environment that are not specifically addressed by the RCRA regulations. To address such instances, HSWA increased the authority of EPA when writing permits by creating the omnibus provision. This authority allows EPA to add conditions that are not specifically described in Part 264 to an operating permit, where the permit writer demonstrates that the additional standards are necessary to protect human health and the environment. For example, EPA could invoke the omnibus authority to require a TSDF owner and operator to conduct a site-specific risk assessment of the impact on endangered species before issuing an operating permit to the facility, even though such risk assessments are not specifically mandated by the RCRA regulations.

Permit-as-a-Shield

In general, compliance with a RCRA permit is considered compliance with the RCRA regulations for enforcement purposes. This gives permittees the security of knowing that if they comply with their permits, they will not be enforced against for violating new requirements that were not established in the original permit. This is referred to as the **permit-as-a-shield** provision. EPA believes that the most useful purpose of a permit is to specifically prescribe the requirements that a facility has to meet to allow that facility to plan and operate with knowledge of what rules apply.

While permit-as-a-shield protects a facility from having to comply with new regulatory requirements that were not included in the original operating permit, some regulatory requirements are of such importance to the protection of human health and the environment that EPA feels that TSDFs should have to comply with them immediately. As a result, the permit-as-a-shield provision does not apply to some types of new regulatory provisions. Examples are the LDR standards, the liner and leak detection requirements for certain land disposal units, and the organic air emissions provisions.

INTERIM STATUS

Many TSDFs were already existing and operating when they became subject to RCRA regulatory requirements as a result of a statutory or regulatory change. These owners and operators were immediately subject to the RCRA requirements, including the requirement to obtain an operating permit. Many of these facilities were not able to immediately meet the required TSDF design and operating standards in order to obtain an operating permit. Congress recognized that it

HOW DOES INTERIM STATUS OPERATE?

Beginning in 1980, XYZ Corporation began treating and storing nonhazardous petroleum refinery sludges at one of its facilities. On November 2, 1990, EPA promulgated F037 and F038 hazardous waste listings for such sludges. As a result, the sludges became subject to the hazardous waste regulations and XYZ's facility became subject to the RCRA TSDF standards. However, rather than ceasing operations, the facility was allowed to operate under the interim status provisions until it received an operating permit. Under these provisions, XYZ was required to submit a Part A permit application six months after the date of publication of the regulatory change that subjected it to the RCRA standards (i.e., by May 2, 1991).

XYZ's Part B permit application must be submitted when requested by the permitting agency. The permitting agency will give the facility at least six months from the date of request to submit the Part B. If XYZ is managing these sludges in land disposal units, the owner and operator must submit their Part B within 12 months of becoming subject to the regulations (i.e., by May 2, 1992) or they will lose interim status.

would be virtually impossible for the Agency and authorized states to issue permits to all existing TSDFs before the RCRA Subtitle C program became effective in November 1980. As a result, Congress established provisions to give these facilities "interim status." Interim status allows a facility to operate without a permit as long as it complies with certain general facility and unit-specific TSDF standards until the implementing agency can make a final permit determination (interim status TSDF standards are fully discussed in Section III, Chapter 5). These interim status requirements are self-implementing until the facility submits its Part B permit application and receives its final permit.

Qualifying for Interim Status

In order to qualify for interim status, the facility must have:

- Existed (operating or in construction) on the effective date of the rule that brought the facility into the RCRA program
- Submitted a Part A permit application
- Notified EPA of hazardous waste activity.

Changes During Interim Status

Changes can be made to a facility operating under interim status provided that the owner and operator submits a revised Part A permit application that includes justification for the proposed change before any changes are made. The following changes are permissible:

- Management of hazardous wastes not previously identified in Part A of the permit application
- Increases in the design capacity of processes used at the facility
- Changes to, or additions of, hazardous waste processes
- Changes in the ownership or operational control of the facility
- Changes made in accordance with an interim status corrective action order under §3008(h) (corrective action is fully discussed in Section III, Chapter 9)
- Addition of newly regulated hazardous waste units.

Changes to an interim status facility may not be made if they amount to "reconstruction" of the facility. Any change that requires a capital expenditure exceeding 50 percent of the cost of construction of a comparable new facility is considered reconstruction. This reconstruction prohibition prevents interim status facilities from constructing entirely new facilities while operating under self-implementing standards, in order to avoid the scrutiny of the permitting process that would otherwise apply to new facilities. The reconstruction prohibition does not apply if the changes are necessary to comply with the LDR regulations, the hazardous waste tank regulations or a corrective action order, among other things.

Termination of Interim Status

Interim status is terminated either when the permitting agency makes a final determination on the Part B permit application (to either issue or deny a permit), or when the facility fails to furnish a Part B application on time.

An owner and operator of an interim status facility may submit the Part B voluntarily or in response to a request from the state or EPA. However, an owner and operator of a facility already in existence must submit the Part B in accordance with HSWA-mandated deadlines for specific types of units. If a permittee fails to submit the Part B before the expiration of the specified statutory time period, the facility loses interim status immediately. These deadlines were imposed because Congress wanted to ensure that hazardous waste management units that posed increased threats to human health and the environment would not operate in interim status indefinitely.

SPECIAL FORMS OF HAZARDOUS WASTE PERMITS

Some unique hazardous waste management operations and practices require special permit provisions. These provisions provide the permitting agency flexibility in developing permit conditions and procedures for permit administration. These special forms of permits include:

- Permits-by-rule
- Emergency permits
- RD&D permits
- Land treatment demonstration permits
- Combustion permits
- Post-closure permits.

■ Permits-by-Rule

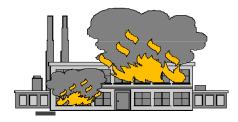
EPA issues permits under different environmental statutes. In some instances, the RCRA regulations may overlap with the requirements of another statute. In order to avoid unnecessary duplicative regulation, RCRA allows these facilities' non-RCRA permit to serve in place of a RCRA permit, provided that such facilities are in compliance with that permit and other basic RCRA administrative requirements. Permits-by-rule are available for:

- Ocean disposal vessels and barges regulated under MPRSA
- UIC wells regulated under SDWA
- POTWs regulated under CWA.



■ Emergency Permits

In emergency situations, EPA can forego the normal permitting process for hazardous waste management activities. Specifically, when EPA or an authorized state finds there is an imminent and substantial endangerment to human health and the environment, it can issue a temporary emergency permit to allow treatment, storage, or disposal of hazardous waste by a nonpermitted



facility or by a permitted facility that has not been permitted to engage in such activity. The duration of an emergency permit cannot exceed 90 days.

Research, Development, and Demonstration Permits

Owners and operators who propose to use innovative hazardous waste treatment technologies can receive a RD&D permit, provided that permit standards for such an activity have not already been established by EPA. The RD&D permit requirements specify that a facility can only receive those wastes necessary to determine the efficiency of the treatment technology. RD&D permits provide for the construction and operation of the facility for up to one year, but may be renewed up to three times with each renewal not exceeding one year. In order to expedite the issuance of RD&D permits, EPA may modify or waive the usual permit application and issuance requirements, with the exception of financial responsibility and public participation. When issuing RD&D permits, EPA must maintain consistency with its mandate to protect human health and the environment.

Land Treatment Demonstration Permits

Before a land treatment facility can obtain a final permit, the owner and operator must demonstrate that hazardous constituents in a waste can be completely degraded, transformed, or immobilized in the treatment zone. Land treatment demonstration permits allow an owner and operator to perform these required treatment demonstrations in order to obtain a final TSDF operating permit. Such demonstration permits are issued for treatment or disposal, and may include field tests or laboratory analysis conditions, unit design criteria, construction standards, operation provisions, and maintenance requirements (land treatment unit standards are fully discussed in Section III, Chapter 5).

Combustion Permits

Combustion permits specify the conditions under which a combustion facility must operate. A facility's permit specifies the operating conditions, such as waste feed rate, unit temperature, gas velocity, and carbon monoxide emissions, which guarantee that a combustion unit will meet its respective performance standards (i.e., pollutant-specific air emissions limitations). The permit also specifies combustion unit waste analysis, inspection and monitoring, and residue management requirements. (Standards for combustion units are fully discussed in Section III, Chapter 7.) Additionally, the permit sets conditions for all other hazardous waste storage, treatment, and disposal units at the facility.

Owners and operators must obtain a RCRA operating permit before beginning construction of a combustion unit. However, it is impossible to prescribe which specific operating conditions will limit air emissions without a constructed unit that the owner and operator can actually test to determine if adequate protection of human health and the environment is being achieved. As a

result, the permit process for combustion units is comprised of four phases intended to test the unit's operation prior to the issuance of the final permit to ensure that the unit can operate in accordance with its operating conditions (see Figure III-34). These phases include:

- Shake-down period, during which the combustion unit is brought to the level of normal operating conditions in preparation for the trial burn
- Trial burn, during which burns are conducted so that performance can be tested over a range of conditions
- Post-trial burn, during which the data from the trial burn is evaluated and the facility may operate under conditions specified by the permitting agency
- Final operating period, which continues throughout the life of the permit.

The permitting agency specifies operating conditions for all phases based on a technical evaluation of the combustion unit's design, the information contained in the permit application and trial burn plan, and results of burns from other combustion units. The operating conditions are established such that the combustion unit will theoretically meet performance standards at all times. The results from the trial burn are used to verify the adequacy of the proposed operating conditions.

Figure III-34: COMBUSTION UNIT PERMITTING Final Permit Decision Construction of Combustion Unit Shake-Down Period Trial Burn Post-Trial Burn Final Operating Period

Interim Status Combustion Units

Owners and operators of interim status combustion units must demonstrate that their units meet all applicable performance standards by submitting performance data developed during actual burns. Performance data is used by the permitting agency to determine whether the combustion unit meets RCRA performance standards when burning a particular waste under a specific set of operating conditions.

Post-Closure Permits

Owners and operators of hazardous waste disposal units, and owners and operators of hazardous waste management units that cannot clean close and must close as landfills, must conduct post-closure care, including ground water monitoring and maintenance of an impermeable cap (post-closure is fully discussed in Section III, Chapter 5). The standards for permitted facilities incorporate post-closure care requirements into the facility's operating permit to ensure that postclosure care is performed in a protective manner. However, because interim status facilities do not yet have operating permits, the RCRA regulations require that interim status facilities needing postclosure care obtain a post-closure permit to ensure that such closure is performed in a protective manner, as well. In securing a postclosure permit, interim status facilities must meet all applicable requirements for permitted facilities, including the ground water monitoring standards.

SUMMARY

The RCRA regulations require hazardous waste TSDFs to obtain an operating permit that establishes the administrative and technical conditions under which hazardous waste at the facility must be managed. Such permits cover the full range of TSDF standards, including general

facility provisions, unit-specific requirements, closure and financial assurance standards, and any applicable ground water monitoring and air emissions provisions.

In order to obtain a permit, a TSDF owner and operator must comply with specific application procedures. The permitting process consists of the following stages:

- Informal meeting prior to application
- Permit submission
- Permit review
- Preparation of the draft permit
- Taking public comment
- Finalizing the permit.

After issuance, permits may need to be modified to allow facilities to implement technological improvements, comply with new environmental standards, respond to changing waste streams, and generally improve waste management practices. These modifications can be initiated by either the facility or the permitting agency.

Facilities that were existing and operating on the effective date of a regulation that required them to obtain an operating permit are considered interim status facilities. They are allowed to continue operating as long as they comply with certain general facility and unit-specific TSDF standards until the implementing agency makes a final permit determination.

Some unique waste management operations and practices require special permit provisions. These special forms of permits include:

- Permits-by-rule
- Emergency permits

- RD&D permits
- Land treatment demonstration permits
- Combustion permits
- Post-closure permits.